

BassCube™ 15 Subwoofer
Installation and Operating Instructions



BassCube 15

IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within a product's enclosure that may be of sufficient magnitude to constitute the risk of electric shock to persons.

WARNING

**SHOCK HAZARD
DO NOT OPEN**

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SUBWOOFER'S COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

AVIS

**RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR**

POUR EVITER TOUT RISQUE DE CHOC ELECTRIQUE, NE PAS DEMONTER LE COUVERCLE DU HAUT PARLEUR. AUCUN ENTRETIEN DES PIECES INTERIEURES N'EST REQUIS. TOUT SERVICE D'ENTRETIEN NE DOIT ETRE EFFECTUE QUE PAR DU PERSONNEL D'ENTRETIEN QUALIFIE.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

**READ AND HEED IMPORTANT SAFETY WARNING
ON BACK OF SUBWOOFER ENCLOSURE**

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, INSERT FULLY.

ATTENTION: POUR EVITER LES CHOCs ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.



WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE

The serial number for the subwoofer is located on the subwoofer's control panel. Please write this number down and keep it in a secure area. This is for your security.

IMPORTANT SAFETY INSTRUCTIONS

READ INSTRUCTIONS - All safety and operating instructions should be read before the *BassCube 15* subwoofer is operated.

RETAIN INSTRUCTIONS - The safety and operating instructions should be retained for future reference.

HEED WARNINGS - All warnings on the *BassCube 15* subwoofer and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS - All operating and use instructions should be followed.

CLEANING - Unplug the *BassCube 15* subwoofer from the wall outlet or other power source before cleaning. Use a damp cloth for cleaning.

ATTACHMENTS - Do not use any adaptors or attachments not recommended by Cambridge SoundWorks as they may cause hazards.

WATER AND MOISTURE - Do not use the subwoofer near water—for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; on carpet that may have recently been shampooed or become damp; or near a swimming pool or other similar areas.

ACCESSORIES - Do not place the *BassCube 15* subwoofer on an unstable cart, stand, tripod, bracket, or table. The *BassCube 15* subwoofer may fall, causing serious injury to a child or adult, and serious damage to the product.

VENTILATION - Openings and metal fins on the cabinet are provided for ventilation, to ensure reliable operation of the *BassCube 15* subwoofer and to prevent it from overheating. These areas must not be blocked or covered such as by placing the product on a bed, sofa, very deep pile rug, or other similar surface. The *BassCube 15* subwoofer should not be placed in a built-in installation such as a bookcase or rack.

HEAT - The *BassCube 15* subwoofer should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.

POWER SOURCES - The *BassCube 15* subwoofer should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

POLARIZATION - The *BassCube 15* subwoofer may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

POWER-CORD PROTECTION - The AC power cord should be routed so that it is not likely to be walked on. No object should bring weight to bear on to the AC power cord.

LIGHTNING - For added protection for the *BassCube 15* subwoofer during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the subwoofer due to lightning and power-line surges.

OVERLOADING - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

OBJECT AND LIQUID ENTRY - Never use probes of any kind to reach into the *BassCube 15* subwoofer as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on or in the *BassCube 15* subwoofer.

SERVICING - Do not attempt to service the subwoofer yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE - Unplug the *BassCube 15* subwoofer from the wall outlet or other power source and refer servicing to qualified service personnel under the following conditions:

a) When the power-supply cord or plug is damaged.

b) If liquid has been spilled, or objects have fallen into the *BassCube 15* subwoofer.

c) If the *BassCube 15* subwoofer has been exposed to rain or water.

d) If the *BassCube 15* subwoofer does not operate normally by following the operating instructions; or exhibits a distinct change in performance.

e) If the product has been dropped or damaged in any way.

REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by Cambridge SoundWorks or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK - Upon completion of any service or repairs to the *BassCube 15* subwoofer, ask the service technician to perform safety checks to determine that the *BassCube 15* subwoofer is in proper operating condition.

BassCube 15 Subwoofer

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FIGURE 4: HOW ROOM PLACEMENT AFFECTS BASS RESPONSE



Introduction

Bass drums, organs, and electronic synthesizers produce extremely low frequency sounds. But traditionally, few home loudspeakers are designed to reproduce bass below about 50 Hz.

Today, however, home loudspeakers are called upon to reproduce more than music: in home theater systems, they are called upon to reproduce movie soundtracks. These soundtracks contain a lot of energy at very low frequencies, such as on sound effects. To do full justice to these effects, as well as to the musical low frequencies missed by most speakers, the Cambridge SoundWorks *BassCube 15* subwoofer reproduces at high output the lowest bass sounds the human ear can detect.

Unpacking

After unpacking the *BassCube 15* subwoofer, please examine it carefully for any signs of shipping damage. We suggest that you keep the shipping carton and packing materials in case you want to transport your subwoofer. If there is any damage, do not install or use the subwoofer. Refer to the "Difficulty" section on page 8 to return the product.

Cambridge SoundWorks

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Eastern time

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E-mail:

info@cambridgesoundworks.com

www.cambridgesoundworks.com

Placement

Place the *BassCube 15* subwoofer in your listening room using the guidelines that follow. Listen and experiment with placement before making the installation permanent.

Note: The *BassCube 15* subwoofer is designed to operate sitting on the floor. Do not place the subwoofer on shelving or inside cabinets. The power cord is approximately 6 feet long. If you

must use an extension cord, be sure it is a polarized heavy duty cord.

1. The *BassCube 15* subwoofer's very low-bass output is room-filling. For this reason the subwoofer doesn't need be particularly close to other speakers or aimed in any direction.
2. The *BassCube 15* subwoofer can sit in a variety of positions within the listening room. Make sure there is a clear air space of at least 2 1/2" surrounding the *BassCube 15*

subwoofer's amplifier panel. Don't place objects on, near or against the *BassCube 15* subwoofer (such as clothing or curtains) that could inadvertently drape down the back of the unit, restricting air flow or speaker output.

3. The maximum low bass output of the *BassCube 15* subwoofer is markedly affected by adjacent room surfaces. Start by placing the subwoofer against the same wall as

your front speakers, preferably close to a corner (**Figure 4, B or C**). The strongest output will be produced with the subwoofer directly in a corner, since corner placement "directs" most of the bass output toward the center of the listening room. Corner placement effectively reduces the amount of bass that leaks out to other rooms. Less bass output will result if the subwoofer is placed out in the room, away from the walls (see **Figure 4, A**).

4. The larger the room, the greater the demand for low-frequency acoustic energy. The best type of room for bass reproduction in a home theater would be one moderate in size, solidly constructed, with no openings to other rooms. While listening shut the room's doors and windows (if practical). It can make a surprising difference.

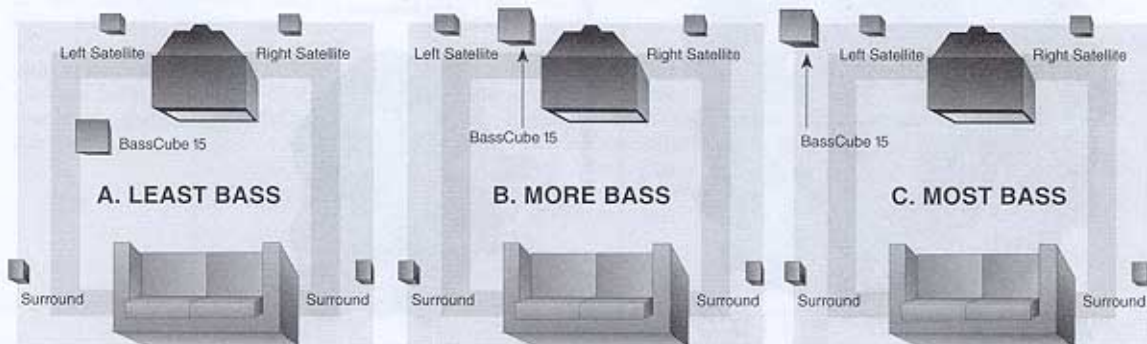


FIGURE 4: HOW ROOM PLACEMENT AFFECTS BASS RESPONSE

Audio And AC Power Connections

SURROUND DECODER OR RECEIVER

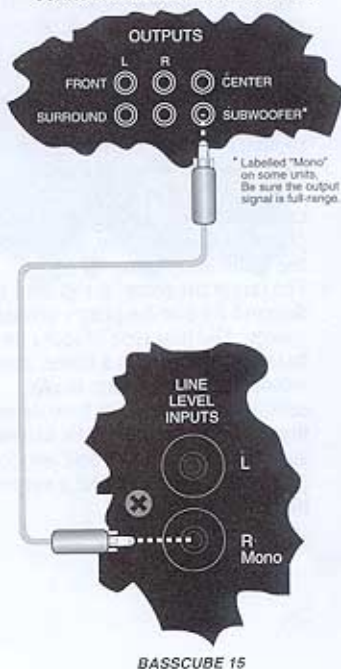


Figure 1.
Surround decoder or receiver with
subwoofer (mono) output

INTEGRATED AMP OR RECEIVER (FRONT)

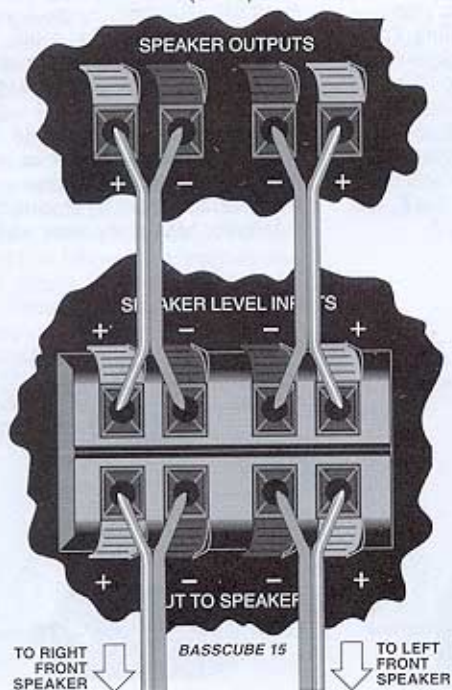


Figure 2.
Using speaker wire

PREAMP

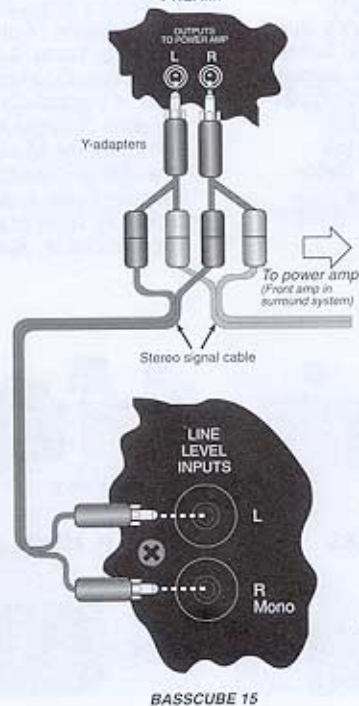


Figure 3.
Using "Y" adapters and phono cable

Audio Connections

The *BassCube 15* subwoofer can be connected to a mono subwoofer output, a main amplifier's speaker outputs, or stereo preamp outputs.

Note: You should connect the *BassCube 15* subwoofer to your system using *either* the line level inputs or the speaker level inputs – but not both sets of inputs.

Note: Make all connections with the *BassCube 15* subwoofer switched off and the Subwoofer Level control at its minimum setting.

Connection Method One:

Connect from a subwoofer output using a suitable length mono shielded cable with an RCA phono plug at each end (**Figure 1**). Connect the cable to the right channel line level input on the *BassCube 15* subwoofer.

Connection Method Two:

Connect directly from an amplifier or receiver's speaker output terminals to the subwoofer's Speaker Level Inputs using conventional speaker wire. Then connect your speakers to the Out To Speakers terminals (**Figure 2** on page 3).

Note: No frequency contouring or filtering is applied to the **OUT TO SPEAKERS** outputs.

Be sure the speaker wire connects the positive (+) terminals of the subwoofer to the positive (+) terminals of the amplifier or receiver (and similarly connects the negative (–) terminals together). All two-conductor speaker cable is coded along one conductor by lettering, a stripe or a raised bead – or – the appearance of the two conductors differs, usually one copper and one silver. This allows you to easily connect the proper conductor to each terminal.

Connection Method Three:

Connect from a stereo preamp output to the *BassCube 15* subwoofer's Line Level inputs. A suitable length of conventional stereo phono cable with RCA plugs at each end is all you need if your preamp has an unused stereo output.

To connect between a stereo preamp and a stereo power amp, combine a suitable length stereo phono cable with two "Y" adapters. Each adapter has one RCA male plug to two RCA female jacks (**Figure 3**). Some receivers and integrated amplifiers have preamp outputs and power amp inputs that are accessible by removing jumpers from the back panel.

Power Connections

Do *not* plug the *BassCube 15* into a switched outlet on your amplifier or receiver, since the *BassCube 15* subwoofer could draw sufficient current at high volume levels to damage the switched outlet's relay mechanism. After making the audio connections, plug the power cord into any convenient unswitched 120-Volt AC, 60 Hz outlet and turn the subwoofer **ON**.

The *BassCube 15* subwoofer has an automatic "Power Off" circuit that turns off power to the amplifier circuit after it has been silent for over 15 minutes. The *BassCube 15* subwoofer rapidly activates as soon as a new signal is present. This feature operates when the power switch (see page 7) is in the **AUTO** position. Most home users will find this setting to be appropriate.

The **ON** position of the power switch keeps the amplifier operating and drawing a small current. This setting is appropriate when the *BassCube 15* subwoofer is used in professional sound studios.

Special Note About Line-Level Subwoofer Outputs

Most subwoofer outputs on conventional receivers (stereo or Dolby Surround® with Pro Logic®) deliver a full frequency range signal, a mono version of the stereo signal fed to the main speakers. *BassCube 15* owners using this type of output should set the Low Pass Frequency control as described in the section "Selecting Low Pass Frequency".

Dolby Digital equipment features a "Large/Small" size selection for the Main speakers. Unless your speakers are very large, set this option to "Small" and adjust the Low Pass Frequency as described in the next section. If you set this choice to "Large," set the **LOW PASS FREQUENCY** to 170.

Selecting Low Pass Frequency

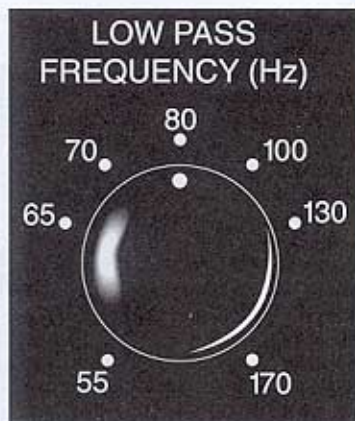
Before you adjust the output level of the subwoofer, you should select an appropriate setting for the Low Pass Frequency control. The proper setting depends on the bass "reach" of your Main speakers. This control behaves the same whether you use the Speaker Level or Line Level signal inputs of the *BassCube 15*.

Because there is a slight output level change when you adjust this control, it should be set first, followed by the Subwoofer Level control. After your sound system is set up and operating, you may feel the sound of the subwoofer is too "localized." In this case, reduce the Low Pass setting slightly.

Use the following guidelines to choose the best setting.

- **55 Hz - 70 Hz:** For any large, wide-range main speaker system or for any of the following Cambridge SoundWorks speakers: All *Ensemble*® series speakers except *Ensemble IV*, All *Tower*™ series speakers, or *Model Six* speakers.
- **70 Hz - 130 Hz:** For use with smaller bookshelf sized speaker systems. Use this setting with the *CSW Model Seventeen* or *Ensemble IV*. Use the 130 Hz setting with all *MovieWorks*® systems or other small main speakers.
- **170 Hz:** Use this setting only if you are connecting the subwoofer to the "Subwoofer Out" of a Dolby Digital® system and set the main speakers to "Large".

Note to *Ensemble* series owners: The *Basscube 15* is intended to supplement, not replace, the separate subwoofers supplied with these systems. It is best not to disconnect your *Ensemble* series subwoofers when using the *BassCube 15* powered subwoofer.



The Subwoofer Level Control

The Subwoofer Level Control adjusts how loudly the *BassCube 15* subwoofer plays. Start with it set at 3, then adjust upward or downward depending on what you discover during your listening tests. Be sure to assess bass level at your normal listening position, not while you are near the subwoofer.

Remember to adjust the *BassCube 15*'s output level with material that contains strong, deep bass signals. It's easiest to adjust when listening to appropriate film soundtracks (HiFi video cassette, Laser Disc, or DVD's). Action or adventure film soundtracks generally have the deepest bass signals. Try films with explosions or similar sound effects.

With the *BassCube 15* subwoofer properly adjusted, these film and video sound effects should literally be room-shaking at high playback levels. In contrast, much of the music on audio CDs should not sound any different with the *BassCube 15* subwoofer properly adjusted. Indeed, if the subwoofer does add "boomy" or "thumpy" quality to your music, you may have the subwoofer level control set too high.

It may take several listening sessions using different films and musical sources to arrive at the single best setting for the Level Control. The subwoofer's Level Control is intended to be set once and then left alone.

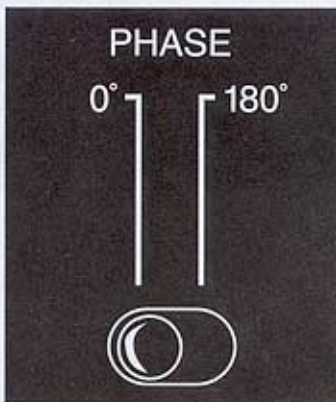
Once you have decided on a setting, use tone controls on your main electronics to compensate for the inevitable small differences in bass output between different recordings. If you experience any difficulty, don't hesitate to consult your store or call a Cambridge SoundWorks Audio/Video Consultant at 1-800-978-9102.



Start with the Bass Level set at 3

Phase Switch

The two-position Phase Switch can improve the blend between your Main speakers and the *BassCube 15*. Adjust this switch while listening to music with repetitive, strong bass output (like a bass drum or other percussion beat). Have someone flip the switch while you listen in your preferred listening position. If you hear a difference (and it's possible you will not), choose the setting with the stronger drum sounds. Leave the switch in the 0° setting if you hear no difference.



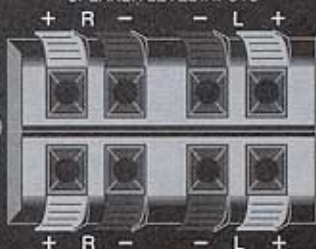
Back Panel

BASSCUBE™15

**CAMBRIDGE
SOUNDWORKS**

BASSCUBE IS A TRADEMARK OF CAMBRIDGE SOUNDWORKS, INC.

SPEAKER LEVEL INPUTS



OUT TO SPEAKERS



SUBWOOFER
LEVEL



LINE
LEVEL
INPUTS



L



R

MONO



LOW PASS
FREQUENCY (Hz)



POWER
RED - STANDBY
GREEN - ON

POWER SWITCH

Specifications

BassCube 15

Amplifier Power: 150 watts

(at 100 Hz, <.5% THD)

Driver Size: 15 inches

Length of Power Cord: 6 feet

Sensitivity for full output at 100hz.

Subwoofer Level at max.

Low Pass Frequency set at 170:

Line Level Input (mono), millivolts 420 mv

Speaker Level Inputs (stereo), millivolts 820 mv

Low Pass Filter Response: 24 dB/Octave

Frequency Response, Hz (± 3 dB):

LP setting

55 Hz 27-57 Hz

65 Hz 27-62 Hz

70 Hz 27-69 Hz

80 Hz 27-78 Hz

100 Hz 28-98 Hz

130 Hz 28-128 Hz

170 Hz 28-170 Hz

Difficulty?

If you suspect there's a problem, after you set up and listen to your Cambridge SoundWorks product, first review this manual. If the problem persists, contact the store where you purchased it. You may also call a Cambridge SoundWorks Audio/Video Consultant at 1-800-978-9102 who will help you isolate the problem. It could be with some other component in your system.

If you and our Audio/Video Consultant agree there is something wrong with your Cambridge SoundWorks product, you should return it to the store where you purchased it. If this is not possible, our Audio/Video Consultant can issue a Return Authorization Number. Please, do not return Cambridge SoundWorks products or any parts to the factory without prior authorization, as unnecessary delays may result.

Replacing The Fuse

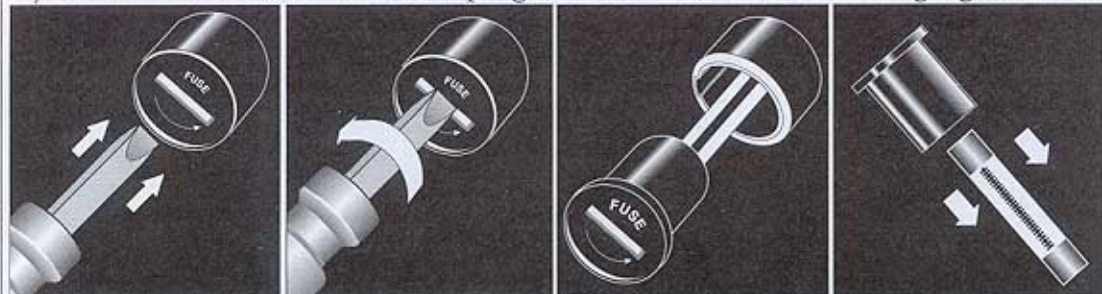
The fuse holder is located next to the power cord. A fuse protects the amplifier inside the *BassCube 15* subwoofer. If the fuse blows, it is safe to replace it with a new 2.5A, 250V fuse using a screwdriver (see below).

Do Not substitute a fuse of a different rating.

If the second fuse blows, do not attempt to replace the fuse another time. Call a Cambridge SoundWorks Audio/Video Consultant at 1-800-987-9102.

There are no other fuses or user-replaceable parts within the *BassCube 15* subwoofer.

1.) IMPORTANT: Turn off and unplug the subwoofer before changing the fuse.



2.) Fuse located on the back panel.

3.) Push in and turn counter clock-wise.

4.) Fuse will pop out of its casing.

5.) Gently remove and replace.

Limited Warranty

To the original purchaser, Cambridge SoundWorks, Inc. will warrant the *BassCube 15* subwoofer to be free of defects in material and workmanship for a warranty length period of two (2) years from date of purchase. With respect to defects, Cambridge SoundWorks will, at its option, replace the product or repair the defect in the product with no charge to the original purchaser for parts or labor.

These warranties do not extend to any defect, malfunction or failure caused by misuse, abuse, accident, faulty hookup, defective associated equipment or use of the speaker with equipment for which it is not intended.

This warranty is the sole and express warranty of the products named in its title, and is in lieu of all other warranties, expressed or implied, of merchantability, fitness for purpose or otherwise. In no event shall Cambridge SoundWorks be liable for incidental or consequential damages or have any liability with respect to defects other than the obligations set forth herein.

To ensure warranty coverage, it is incumbent upon the original purchaser to inform Cambridge SoundWorks or any of its Authorized Service Agencies of the defect within the warranty period. The only acceptable method of establishing warranty status is a copy of the original proof of purchase indicating customers name and date of purchase.

Upon notification by the purchaser and reaching agreement with the purchaser that there is a defect, Cambridge SoundWorks will issue a Return Authorization Number for the product. The purchaser will return the product to the address below, freight prepaid by the purchaser. The product shall have the Return Authorization Number clearly marked on the outside of the package. The package must include a copy of the original proof of purchase. Please do not return a *BassCube 15* subwoofer to Cambridge SoundWorks without prior authorization from Cambridge SoundWorks.

For warranty information contact:

Cambridge SoundWorks, Inc.
311 Needham St.
Newton, MA 02464
1-800-987-9102
www.cambridgesoundworks.com
Email:
info@cambridgesoundworks.com

Cleaning The Cabinet

If more than dusting is needed, the finish on the subwoofer can be cleaned with a window or vinyl cleaning product. Avoid spraying the cleaner underneath the cabinet to prevent damage to the speaker. Do not use any cleaning liquid or spray directly on the speaker cone as it may cause damage or seriously degrade performance and may void your warranty.

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